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The Native American
Women's Health Education
Resource Center



Protect yourself and
the ones you love:

Know the Facts
About
Tuberculosis



It's more common than
you might think.

What is Tuberculosis?

Tuberculosis, or TB, is a disease caused when TB bacteria enters the body. TB infection and disease compromises the immune system. There are two different types of TB according to which region of the body it infects:

- *pulmonary TB*, when TB bacteria settles in the lungs and throat; and
- *extrapulmonary TB*, when TB bacteria moves beyond the lungs into the bloodstream to other parts of the body, such as the kidney, spine, and brain.

TB, if untreated, can spread throughout the bloodstream and lodge in different sites in the body, causing pain as well as death.

How do you get TB?

TB is transmitted from person to person through the air. When a person with TB coughs, small droplets containing the TB bacteria are discharged into the air, where they may remain suspended for several hours. When another person inhales this air containing the small droplets, the TB bacteria enter the lungs, making the person infected.

What's the difference between TB infection and TB disease?

TB infection occurs when the tubercle bacilli enters the body, but is prevented from growing by the immune system. The TB bacteria become inactive, but they remain alive in the body and can become active later. People with TB infection do not feel sick, have no symptoms, and cannot spread TB to others. TB infection progresses to *TB disease* only when tubercle bacilli overcome the defenses of the immune system and begin to multiply. The progression from infection to disease may occur in a short time or over the span of many years; however, 90% of persons infected with TB never develop the disease during their lifetime.

Medical conditions that increase the risk that TB infection will progress to disease include:

- HIV infection (increases risk by over 100 times)
- diabetes mellitus (increases risk by 3 times)
- substance abuse, especially drug injection
- leukemia and Hodgkin's disease
- chronic malabsorption syndromes
- low body weight (10% or more below the ideal)

But haven't the number of TB cases been decreasing?

Although TB was on the decrease since the 1940s, there has been an increase in the number of new TB cases in the US since the mid-1980s. The recent increase in TB cases have been attributed to at least four factors: (1) the association of TB with the HIV epidemic; (2) immigration of people from countries where TB is common; (3) the transmission of TB in communal settings, such as health care or correctional facilities, and homeless shelters; and (4) a deterioration of the health care infrastructure.

Native Americans are five times more likely than whites to have TB because they are typically in medically underserved, low-income populations. In addition, malnutrition and alcohol problems that plague many reservations, are believed to make the immune system weaker, and thus themselves more vulnerable to catching TB.

You are more likely to be exposed to or infected with TB if:

- you have had close contact with a person with infectious TB
- you inject drugs
- you have been diagnosed with HIV infection
- you have resided in a long-term care facility (e.g. correctional facilities and nursing homes)
- you are from a medically underserved, low-income population

You should go to a doctor or clinic if:

- you've had a productive, prolonged cough for longer than 3 weeks, in combination with chest pain, coughing up blood, fever, chills, night sweats, weakness or fatigue, loss of appetite, and/or weight loss.

or

- someone you've had close contact with tells you s/he has TB.



What is the TB test?

The tuberculin test is the only way to identify people with TB infection. Tuberculin is injected underneath the surface of the skin on the forearm, creating a small bump. The patient then needs to have the reaction read by a trained health care worker 2-3 days after the injection. The swelling around the site of the injection is the reaction to the tuberculin, and the size of the diameter of the swelling indicates a positive or negative reaction to the test. A positive reaction usually means that you have TB infection.

If you have a positive reaction to the skin test, more tests will be done to determine whether or not you have TB disease, from chest x-rays to a test of the phlegm you cough up. The doctor or nurse may also check your blood or urine, or do other tests, because the TB bacteria may be found somewhere else besides your lungs.

How can I get rid of TB?

Compared with other infectious diseases, TB must be treated for a long time, from 6-24 months. If treatment is cut short, some tubercle bacilli may survive, and the infection and disease may recur. Treatment involves use of multiple drugs, because they do a better job of killing all the bacteria as well as prevent them from becoming resistant to the drugs. Once a TB strain develops that is resistant to multiple drugs (at least isoniazid and rifampin), treatment becomes more difficult.

There are five commonly used drugs available for treatment: isoniazid, rifampin, pyrazinamide, ethambutol, and streptomycin. The number of drugs used increases with increasing possibility of drug resistance. The aim of the treatment should be to provide the safest and most effective therapy in the shortest period of time. If treatment is adequate, most patients recover.



What are the side effects of drugs for TB?

Although medicine for TB is generally safe, some drugs may cause serious side effects. If you experience any of the symptoms below, call your doctor or nurse immediately:

- no appetite
- nausea
- vomiting
- yellowish skin or eyes
- fever for 3 or more days
- abdominal pain
- tingling fingers or toes
- skin rash
- easy bleeding
- aching joints
- dizziness
- tingling or numbness around the mouth
- easy bruising
- blurred or changed vision
- ringing in the ears
- hearing loss

Your health care provider may tell you to stop taking your medicine or return to the clinic for tests.

However, some side effects are minor problems. If you experience any of the symptoms below, you can continue taking your medicine:

- Rifampin can turn urine, saliva, or tears orange. Your health care provider may recommend that you should remove your soft contact lenses, so that they will not be stained.
- Rifampin can make you more sensitive to sunlight. You should use good sunscreen and cover exposed areas to prevent burn.
- Rifampin makes birth control pills and implants less effective. Women taking rifampin should use another form of birth control.
- Rifampin taken with methadone (used to treat drug addiction) can cause withdrawal symptoms. Your health care provider may want to adjust your methadone dosage.

Do I need to take TB medicine regularly?

Yes! TB bacteria dies very slowly. It can be very dangerous if you stop taking your medicine regularly or stop it completely after you feel better. Even if you feel better, not all the TB bacteria may have been killed, and it will grow again and you will remain sick for a longer time. The bacteria may also become resistant to the drugs you are taking, making it harder to kill the next time. The new drugs will need to be taken for a longer time and usually have more serious side effects.



What is multi-drug resistant (MDR) TB?

Multi-drug resistant TB is a strain of the bacteria that is resistant to more than one of the drugs originally used to treat it. In the US between 1992-3, roughly 15% of all recorded TB cases have been resistant to a certain drug. Cases of multi-drug resistance TB have been documented in 39 states. Multi-drug resistant TB is much harder to treat, and requires special drugs. These drugs are not as good as the usual drugs for TB, and may cause more side effects. People with MDR TB should seek expert consultation.

Is TB related to other diseases?

TB cases have been on the rise recently partially because of its association with the HIV epidemic. HIV infection depresses the immune system, making the body more susceptible to other infections. HIV patients who become infected by TB are more prone to developing extrapulmonary TB, when TB spreads out from the lungs and affects other parts of the body.

How can I stop TB from spreading?

If you are diagnosed with infectious TB, you must:

- **always take your medicine.**
- always cover your mouth with a tissue when you cough, sneeze, or laugh; then put the tissue in a closed paper sack and throw it away.
- do not go to work or school. Isolate yourself from others and avoid close contact with anyone. Sleep in a bedroom away from other family members.
- air out your room often. TB spreads in small, closed spaces that are poorly ventilated. Open the windows to let air that may be filled with TB bacteria out, and fresh air in.



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